

CIB (H-115): sc-33551

BACKGROUND

Platelets regulate the function of Integrin $\alpha 2b/\beta 3$ (GPIIb/IIIa), the platelet Fibrinogen receptor, which is involved in the binding of proteins to integrin cytoplasmic domains. A novel protein, CIB, for calcium- and integrin-binding protein (also designated as Kip for kinase interacting protein, SIP2-28 and DNA-PK_{cs} interacting protein), binds specifically at the cytoplasmic domain of $\alpha 2b$ by a number of positively charged residues in its binding site. Binding of CIB to the $\alpha 2b$ is affected by fluctuations in the intracellular calcium concentration. In aggregated platelets, endogenous CIB and $\alpha 2b/\beta 3$ translocate to the Triton X-100-insoluble cytoskeleton, demonstrating that the cellular localization of CIB is regulated. CIB also binds to DNA-PK_{cs}, which is a nuclear protein serine/threonine kinase that plays a role in the DNA repair and recombination process of lymphoid development. Fnk also binds to the CIB, suggesting that CIB may be a regulatory subunit of polo-like kinases. CIB shows significant homology to calcineurin B and calmodulin, and its mRNA levels are ubiquitously expressed in various human tissues.

REFERENCES

1. Naik, U.P., Patel, P.M. and Parise, L.V. 1997. Identification of a novel calcium-binding protein that interacts with the Integrin $\alpha 2b$ cytoplasmic domain. *J. Biol. Chem.* 272: 4651-4654.
2. Wu, X. and Lieber, M.R. 1997. Interaction between DNA-dependent protein kinase and a novel protein, Kip. *Mutat. Res.* 385: 13-20.
3. Shock, D.D., Naik, U.P., Brittain, J.E., Alahari, S.K., Sondek, J. and Parise, L.V. 1999. Calcium-dependent properties of CIB binding to the Integrin $\alpha 2b$ cytoplasmic domain and translocation to the platelet cytoskeleton. *Biochem. J.* 342: 729-735.
4. Seki, N., Hattori, A., Hayashi, A., Kozuma, S., Ohira, M., Hori, T. and Saito, T. 1999. Structure, expression profile and chromosomal location of an isolog of DNA-PK_{cs} interacting protein (Kip) gene. *Biochim. Biophys. Acta* 1444: 143-147.

CHROMOSOMAL LOCATION

Genetic locus: CIB1 (human) mapping to 15q26.1; Cib1 (mouse) mapping to 7 D3.

SOURCE

CIB (H-115) is a rabbit polyclonal antibody raised against amino acids 77-191 mapping at the C-terminus of CIB of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

CIB (H-115) is recommended for detection of CIB of mouse, rat and human Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2 μ g per 100–500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CIB (H-115) is also recommended for detection of CIB in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CIB siRNA (h): sc-43271, CIB siRNA (m): sc-43272, CIB shRNA Plasmid (h): sc-43271-SH, CIB shRNA Plasmid (m): sc-43272-SH, CIB shRNA (h) Lentiviral Particles: sc-43271-V and CIB shRNA (m) Lentiviral Particles: sc-43272-V.

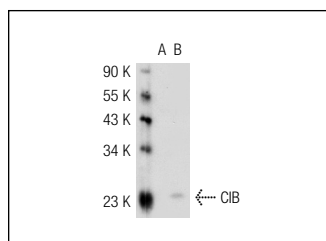
Molecular Weight of CIB: 24 kDa.

Positive Controls: CIB (m): 293T Lysate: sc-126638.

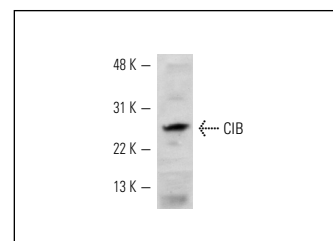
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CIB (H-115): sc-33551. Western blot analysis of CIB expression in non-transfected: sc-117752 (A) and mouse CIB transfected: sc-126638 (B) 293T whole cell lysates.



CIB (H-115): sc-33551. Western blot analysis of CIB expression in human platelet whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **CIB (G-5): sc-271490** or **CIB (E-9): sc-271041**, our highly recommended monoclonal alternatives to CIB (H-115).